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- (71) Applicant (for all designated States except US): **ARIZONA BOARD OF REGENTS**, acting for and on behalf of, **Arizona State University** [US/US]; c/o Arizona Technology Enterprises, LLC, 699 S. Mill Avenue, Brickyard Suite 601, Room 691AA, Tempe, AZ 85281 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **BOOKSH, Karl, Steven** [US/US]; 533 E. Kyle Ct., Gilbert, AZ 85296 (US). **MASSON, Jean-Francois** [CA/US]; 740 West University, #271, Tempe, AZ 85281 (US).
- (74) Agent: **LUTHER, Barbara, J.**; Quarles & Brady Streich Lang LLP, One Renaissance Square, Two North Central Avenue, Phoenix, AZ 85004 (US).
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(54) Title: **BIOCOMPATIBLE LINKERS FOR SURFACE PLASMON RESONANCE BIOSENSORS**

(57) Abstract: A method of coating an SPR biosensor specific for an analyte to reduce protein fouling, the method has the steps of providing an SPR biosensor, providing a solution of 11-mercaptoundecanol; incubating the SPR biosensor in the 11-mercaptoundecanol solution to form a self-assembling monolayer (SAM); incubating the SPR with SAM in a solution of epichlorohydrin and diglyme; next incubating the SPR in ethanolamine; preparing a solution of EDCNHS and a biocompatible polymer; incubating the SPR from ethanolamine in the EDC/NHS/polymer solution; providing a ligand specific for the analyte in a solution; incubating the polymer-coated SPR in the ligand solution to permit the ligand to react with the polymer-coated SPR; washing the ligand-coated SPR to remove unreacted ligand, thereby providing an SPR capable of reacting with the analyte. Another method replaces the solution for the SAM layer with a solution of MHA or NHS-MHA with HT, and attaches the ligand to the resulting SAM layer.

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